

REMARKS

Applicant graciously appreciates the Office's attention to the instant application. In view of the following remarks, Applicant respectfully requests reconsideration and allowance of the subject application. This amendment is believed to be fully responsive to all issues raised in the November 1, 2004 Office Action. As mentioned above, claims 1-10 are currently amended and claims 11-14 are new. Claims 1-14 are pending.

10 Rejections under 35 USC §103(a)

The Office rejected claims 1-10 under §103(a) as being unpatentable over Uehara (US 6,340,052) in view of Frey et al (US 2,768,814). Independent claims 1 and 8 are currently amended. Applicant respectfully submits that the Uehara and the Frey references do not teach or suggest the subject matter of claims 1 and 8, as currently amended.

Claims 1-7

Applicant has amended claim 1 to more clearly recite the unique features of the invention. Claim 1 now recites, in part:

20 *a hot-side manifold that comprises a dividing wall to divide the hot-side manifold into two unequal fluid or gas portions, wherein the smaller of the unequal fluid or gas portions receives the first fluid or gas from the plurality of hot-side fluid or gas transport passages and wherein the larger of the unequal fluid or gas portions directs the first fluid into the*
25 *plurality of hot-side fluid or gas transport passages; and*
 a flow director integral to the hot-side manifold to change the flow direction of the first fluid or gas passing through the larger of the unequal fluid or gas portions.

30 The Uehara and the Frey references do not teach or suggest a heat exchanger with a cold-side manifold and a hot-side manifold where the hot-side

manifold includes a dividing wall to divide the hot-side manifold into two unequal fluid or gas portions.

Claims 2-7 depend directly or indirectly on claim 1 and are believed patentable for at least the same reasons as claim 1.

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Claims 8-14

Applicant has amended claim 8 to more clearly recite the unique features of the invention. Claim 8 now recites:

10 *a dividing wall to divide the manifold into an inlet fluid or gas
portion and a smaller, outlet fluid or gas portion;*
 *an inlet associated with the inlet fluid or gas portion having a
centerline and a cross-sectional flow area substantially orthogonal to the
centerline;*
 an outlet associated with the smaller, outlet fluid or gas portion;
15 *and*
 *a flow director integral to the manifold that comprises at least two
members disposed at non-orthogonal angles to the centerline of the inlet.*

20 The Uehara and the Frey references do not teach or suggest a manifold
that includes a dividing wall to divide the manifold into an inlet fluid or gas
portion with an inlet and a smaller, outlet fluid or gas portion with an outlet.
With respect to cooling of hot gas, such a manifold acts to maintain volumetric
outlet flow rate of the cooler and denser outlet gas by providing an outlet gas
portion for the cooler and denser outlet gas that is smaller than the
25 corresponding inlet gas portion for the hotter and less dense inlet gas. Further,
in such a manifold, the flow director acts to distribute the hotter and less dense
gas.

Claims 9-10 and new claims 11-14 depend directly or indirectly on claim
8 and are believed patentable for at least the same reasons as claim 8.

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Conclusion

Claims 1-14 are pending and believed to be in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the present application. Should any issue remain that prevents immediate issuance
5 of the application, the Examiner is encouraged to contact the undersigned attorney to discuss the unresolved issue.

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Respectfully Submitted,
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